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<110> F. Hoffmann-La Roche AG

<120> IL-15 Antagonists

<130> Case21909

<140> PCT/CH03/00666

<141> 2003-10-13

<150> EP02022869.8

<151> 2002-10-14

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Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu 50 60

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Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp 50 60

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr 65 70 75 - 80

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp 85 90 95

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu 100 105 110

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Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys 130 135 140

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp 145 150 155 160

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys 165 170 175

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser 180 185 190

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser 195 200 205

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Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His Gln 85 90 95

Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp 100 105 110

Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser Val 115 120 125

Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met Thr 130 140

Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu 145 150 155 160

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Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr 180 185 190

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Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu 50 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val 65 70 75 80

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Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn 100 105 110

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Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys 150 155 160

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asm Trp 165 170 175

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu 180 185 190

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu 195 200 205

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn 210 215 220

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly 235 240

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu 245 250 255

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr 265 270

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn 275 280 285

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe 290 300

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Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu 50 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val 65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile 85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn $100 \hspace{1cm} 105 \hspace{1cm} 110$

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Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro 130 140

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Cys Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser 165 170 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His 180 185 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile 195 200 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn 210 220

Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys 225 230 235 240

Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu 245 250 255

| Glu | Met | Thr | Lys 260 | Lys | Gln | val | Thr | Leu 265 | Thr | Cys | Met | ٧a٦ | Thr 270 | Asp | Phe |
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Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr 290 295 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg 305 310 320

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gatacagtag aaaatctgat catcctagca aacaacagtt tgtcttctaa tgggaatgta 240
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| aaggagtaca agtgcaaggt ctccaacaaa gccctcccag cccccatcga gaaaaccatc | 360 |
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| gagctgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac | 480 |
| atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cacgcctccc | 540 |
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| tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac | 660 |
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| agccccatag tcacatgtgt ggtggtggat gtgagcgagg atgacccaga tgtccagatc | 180 |
| agctggtttg tgaacaacgt ggaagtacac acagctcaga cacaaaccca tagagaggat | 240 |
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| ggcaaggagt tcaaatgcaa ggtcaacaac aaagacctcc cagcgcccat cgagagaacc | 360 |
| atctcaaaac ccaaagggtc agtaagagct ccacaggtat atgtcttgcc tccaccagaa | 420 |
| gaagagatga ctaagaaaca ggtcactctg acctgcatgg tcacagactt catgcctgaa | 480 |
| gacatttacg tggagtggac caacaacggg aaaacagagc taaactacaa gaacactgaa | 540 |
| ccagtcctgg actctgatgg ttcttacttc atgtacagca agctgagagt ggaaaagaag | 600 |
| aactgggtgg aaagaaatag ctactcctgt tcagtggtcc acgagggtct gcacaatcac | 660 |
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PCT/CH2003/000666

| Roc | ha- | Man | ST25 | + ++ |
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| ROC. | ne- | neu | .5125 | • LXL |

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| tgcaaggtca acaacaaaga cctcccagcg cccatcgaga gaaccatctc aaaacccaaa | 720 |
| gggtcagtaa gagctccaca ggtatatgtc ttgcctccac cagaagaaga gatgactaag | 780 |
| aaacaggtca ctctgacctg catggtcaca gacttcatgc ctgaagacat ttacgtggag | 840 |
| tggaccaaca acgggaaaac agagctaaac tacaagaaca ctgaaccagt cctggactct | 900 |
| gatggttctt acttcatgta cagcaagctg agagtggaaa agaagaactg ggtggaaaga | 960 |
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| 211> 75 | |
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Pro Ser Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln 35 40 45

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu 50 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val 65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile 85 90 95

Lys Glu Phe Leu Asp Ser Phe Val His Ile Val Asp Met Phe Ile Asn 100 105 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys 115 120 125

Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro 130 135 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr 145 150 155 160

Cys Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser 165 170 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His 180 185 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile 195 200 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn 210 220

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Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu 245 250 255

Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe 260 265 270

Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu 275 280 285

Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr 290 295 300

Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg 305 310 315 320

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Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu 50 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val 65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile 85 90 95

Lys Glu Phe Leu Asp Ser Phe Val His Ile Val Gln Met Phe Ile Asn 100 105 110

Thr Ser Asp Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys

Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro 130 140

Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr 150 155 160

Cys Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser 165 170 175

Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His 180 185 190

Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile 195 200 205

Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn 210 215 220

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| gto | ttcatct | tccctccaaa | gatcaaggat | gtactcatga | tctccctgag | ccccatagtc | 540 |
|-----|----------|------------|------------|------------|------------|------------|------|
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| aac | caacgtgg | aagtacacac | agctcagaca | caaacccata | gagaggatta | caacagtact | 660 |
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| aaa | igggtcag | taagagctcc | acaggtatat | gtcttgcctc | caccagaaga | agagatgact | 840 |
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| gag | itggacca | acaacgggaa | aacagagcta | aactacaaga | acactgaacc | agtcctggac | 960 |
| tct | gatggtt | cttacttcat | gtacagcaag | ctgagagtgg | aaaagaagaa | ctgggtggaa | 1020 |
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<220>

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